

### CLAIMS

1. A synthetic resin emulsion for use as a main component of a sealer composition for recoating a coating and comprising synthetic resin particles dispersed in water, said synthetic resin emulsion which is produced by copolymerizing

(a) 20 to 99.5% by weight of an alkyl (meth)acrylate wherein the content of an alkyl (meth)acrylate, in which the alkyl group has 4 or less carbon atoms, is not less than 50% by weight based on the whole alkyl (meth)acrylate;

(b) 0.5 to 10% by weight of an ethylenically unsaturated carboxylic acid; and

(c) 0 to 79.5% by weight of a monomer copolymerizable with said monomers (a) and (b), in the presence of an alkyldiphenyl ether disulfonate as an emulsifier,

said synthetic resin emulsion having a glass transition temperature ( $T_g$ ) of 15 to 50°C, the average particle diameter of the synthetic resin particles dispersed in water being 0.01 to 0.2  $\mu\text{m}$ .

2. The synthetic resin emulsion according to claim 1, wherein the minimum film-forming temperature (MFT) is 0°C or below.

3. The synthetic resin emulsion according to claim 1 or 2, wherein the alkyl (meth)acrylate, in which the alkyl group has 4 or less carbon atoms, is selected from the group consisting of methyl methacrylate, butyl acrylate, butyl methacrylate, ethyl acrylate, and ethyl methacrylate.

4. The synthetic resin emulsion according to any one of claims 1 to 3, wherein the copolymerizable monomer is a monomer having a functional group selected from the group consisting of glycidyl, ureido, acetoacetoxy, acetoacetyl, amide, allyl, silyl, nitrile, and hydroxyl groups.

5. The synthetic resin emulsion according to claim 4, wherein the amount of the monomer having a functional group used is 0.1 to 10.0% by weight based on the whole monomer contained in the synthetic resin emulsion.

6. The synthetic resin emulsion according to claim 4 or 5, wherein the monomer having a functional group is acetoacetoxyethyl (meth)acrylate.

7. A sealer composition for recoating a coating, comprising the synthetic resin emulsion according to any one of claims 1 to 6.

8. The sealer composition according to claim 7, which further comprises an aqueous dispersion of a chlorinated polyolefin.

9. An exterior material for buildings, which has been coated with the sealer composition for recoating of a coating according to claim 7.

10. A process for producing the synthetic resin emulsion according to claim 1, comprising the steps of:

providing, as monomers, at least an alkyl (meth)acrylate, an ethylenically unsaturated carboxylic acid, and a monomer copolymerizable with the alkyl (meth)acrylate and the ethylenically unsaturated carboxylic acid; and copolymerizing the monomers in the presence of an alkyldiphenyl ether disulfonate.

11. A method for recoating of a coating provided on the surface of an exterior material, comprising the steps of: coating the sealer composition according to claim 7 onto an old coating provided on the surface of an exterior material; and then coating a topcoating material on the coating of the sealer composition.

12. The method according to claim 11, wherein the old coating has been formed using a resin coating material.

13. The method according to claim 11 or 12, wherein the topcoating material is an elastic coating material, an acrylic resin coating material, an acryl/styrene resin coating material, an acryl/silicone resin coating

material, a silicone resin coating material, an acryl/urethane resin coating material, or an urethane resin coating material.

14. The method according to any one of claims 11 to 13, wherein the sealer composition further comprises an aqueous dispersion of a chlorinated polyolefin.

15. Use of the synthetic resin emulsion according to any one of claims 1 to 6, for the production of a sealer composition for recoating of a coating.